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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,169	03/29/2006	Christian Scheering	2003P07837WOU'S	4121
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EXAMINER				
CHACKO, JOE				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/574,169

Applicant(s)

SCHEERING, CHRISTIAN

Examiner

JOE CHACKO

Art Unit

2456

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to the Applicant's amendments filed on 2/4/2009 . Claims 9, 16, 18 have been amended. Claims 9-18 have been presented for further consideration.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/4/2009 has been entered.

Response to Arguments

1. Applicant's arguments with respect to claims 9, 16 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 9-11 and 13-16, 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jung (U.S. Patent Pub. No. 2002/0129150 A1) in view of Shrivastava et al. (U.S. Patent No. 6,163,855) further in view of Yu (U.S. Patent No. 6,078,943)

As to **claim 9**, Jung discloses a method for verifying an availability of a server (fig.15,346, transmitting service availability of a server) **to reduce a load placed on a server**, comprising: transmitting an availability requests by a client (fig.15, 10, MN) to the VPN server(fig.15, 50, VPN server) ([0071]; where the MN sends requests the VPN service from the VPN server through the home agent); transmitting a response to the availability request by the VPN server to the client by confirmation message if the server is available (fig.15, step 348);

Jung does not disclose transmitting a message regarding an availability of the server by the client to other clients to prevent a transmission of the availability request to the server for a predefinable period of time and to calculate the predefinable period of time between availability requests.

In an analogous art, Shrivastava et al. does discloses a method wherein transmitting a message (column 5, lines 29-30; wherein one systems detects a communication failure with one of the systems and broadcasts a message to the cluster) regarding an availability of the server (fig.2, 60, system) by the client (by another system) to a plurality of predefinable other clients; **and reducing the load placed on the server by preventing** a transmission of the availability requests (column 5, lines 25-37; wherein a regroup event is initiated and during which writes to potentially shared devices are disabled until the membership has stabilized)

At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to modify the method disclosed by Jung with the method disclosed by Shrivastava et al. to disclose a method of transmitting messages to another peer entities in the network. The motivation behind this modification is to ensure consistency of nodes in the cluster. (Shrivastava et al., column 2, lines 24-26)

However, Shrivastava et al. does not disclose the method to calculate the predefinable period of time between availability requests.

Yu discloses a method whereby **the plurality of predefinable other clients** to the server for a predefinable period of time t_r , **wherein the predefinable period of time**

tr is calculated (column 5, lines 11-17; wherein the time-to-live (TTL) interval is calculated by the DNS server dynamically) **by** :

$$\mathbf{tr(a.n.s.v)=60s/a*(v*n + s(1-v))}$$

wherein:

a is request rate per minute sending by the client to the server for the availability requests, (column 5, lines 54-55; wherein the service requests from source, A(I))

n is a number of clients within the server (column 5, line 66- column 6, line 4; relative server capacity, C(i), initialized according to the number of requests it can handle normalized by the maximum of capacity among the servers),

s is a number of subnetworks within the server (column 6, lines 55-56; gateways are partitioned into I groups), and

v is loss rate

(Yu discloses a method to calculate the time-to-live(TTL) interval which is similar to the predefinable period of time being calculated in the claim and even though, the formula used in the Yu reference is not the same, the parameters used in the claimed formula are well-known in the art and it is obvious that these parameters would be used by any person of ordinary skill in the art to calculate the time period between availability request.)

At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to modify the method disclosed by Jung with the method disclosed by Shristastava et al. to disclose a method to calculate the period of time between availability requests. The motivation behind this modification is to reduce the number of data requests for less powerful servers and increase them for the servers with higher capacities. (Shristastava et al., column 6, lines 32-36)

As to **claim 10**, Jung-Shrivastava et al. discloses the method as claimed in 9, wherein the method is used for verifying the availability of the server in a packet-oriented communication network (fig.12; wherein the figure explicitly describes the process the detecting whether a service provided by a VPN server is available)

As to **claim 11**, Jung-Shrivastava et al.-Yu discloses a method wherein data is transmitted between the server (Jung,fig.12, VPN server) and clients (Jung,fig.12, MN) by a connectionless switch control (Jung, [0067]; wherein the data transmitted takes place through a VPN network including routers)

As to **claim 13**, Jung does not explicitly disclose the method wherein the client informs only the plurality of predefinable other clients in the same subnetwork.

Shrivastava does disclose a method wherein the client (fig.2, 60, system) informs only the other clients (fig. 2, 60, other systems) within a same subnetwork (fig.2, 58, cluster) regarding the availability of the server. (column 5, lines 26-37; wherein the system detecting the communication failure of another system in the cluster sends out a message to the other members of the cluster regarding the failure)

As to **claim 14**, Jung-Shrivastava et al.-Yu discloses the method as claimed in claim 9, wherein the client (home agent) executes the availability requests at a time which is predefined by a timer . (Jung, [0072]; wherein the timer sets a time period for which the MN is located in the FA)

As to **claim 15**, Jung-Shrivastava et al.-Yu discloses the method, wherein the timer is set every time to a predefinable value when the message regarding the availability of the server is received at the HA. (Jung, [0073]; wherein the timer is set a predetermined time and failure to receive a reply signal within the time period)

As to **claim 16**, this is a computer program corresponding to method in claim 1. Therefore it has been analyzed and rejected based upon method in claim 1.

As to **claim 18**, this is a system corresponding to method in claim 1. Therefore it has been analyzed and rejected based upon method in claim 1.

4. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Jung (U.S. Patent Pub. No. 2002/0129150 AI) in view of Shrivastava et al (U.S. Patent No. 6,163,855) further in view of Chen et al.(U.S. Patent Pub. No. 2002/016964 AI)

As to **claim 12**, Jung and Shrivastava as modified does not explicitly disclose the transmitting of a multicast message to the other clients in the network

In an analogous art, Chen explicitly discloses the method wherein message regarding the availability of the server is transmitted to the plurality of predefinable other clients using a multicast message.essage to inform other clients in the cluster about server availability information. ([0046] , [0056]; wherein when a node fails the cluster node sends information about the failure to other nodes using a multicast message).

At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to modify the method disclosed by Jung as modified with the method disclosed by Chen et al. to disclose a method of transmitting messages to another peer entities in the network using multicast messages. The motivation behind this modification is to provide high availability and reliability among the nodes. (Chen, page 4, [0056])

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOE CHACKO whose telephone number is (571)270-3318. The examiner can normally be reached on Monday-Friday 7:30am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2456

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. C./

Examiner, Art Unit 2456

/Bunjob Jaroenchonwanit/

Supervisory Patent Examiner, Art Unit 2456